MINUTES
of the
FIRST MEETING
of the
RADIOACTIVE AND HAZARDOUS MATERIALS COMMITTEE

June 10, 2014
Room 311, State Capitol
Santa Fe

The first meeting of the Radioactive and Hazardous Materials Committee (RHMC) was called to order by Senator Peter Wirth, chair, on Tuesday, June 10, 2014, at 10:05 a.m. at the State Capitol.

Present
Sen. Peter Wirth, Chair
Rep. Eliseo Lee Alcon, Vice Chair
Rep. Thomas A. Anderson
Rep. Cathrynn N. Brown
Rep. David M. Gallegos
Rep. Stephanie Garcia Richard
Sen. Richard C. Martinez
Rep. Jim R. Trujillo

Absent
Sen. Carlos R. Cisneros
Sen. Gay G. Kernan
Sen. Carroll H. Leavell
Sen. John Pinto

Advisory Members
Rep. Donald E. Bratton
Sen. Michael Padilla
Sen. William H. Payne
Sen. Nancy Rodriguez
Rep. Nick L. Salazar
Sen. William F. Burt
Rep. Brian F. Egolf, Jr.
Rep. William "Bill" J. Gray
Sen. Ron Griggs
Sen. Stuart Ingle
Sen. Daniel A. Ivey-Soto
Rep. Emily Kane
Sen. Clemente Sanchez

Staff
Gordon Meeks, Legislative Council Service (LCS)
Renée Gregorio, LCS

Guests
The guest list is in the meeting file.

Handouts
Handouts and written testimony are in the meeting file.

Tuesday, June 10

After RHMC members introduced themselves, Senator Wirth commented on the importance of the oversight role of the committee, now more than ever. He expressed appreciation for Secretary Ryan C. Flynn and the Department of Environment (NMED) for the great job they have been doing representing the state regarding the radioactive release at the Waste Isolation Pilot Plant (WIPP) and said that the RHMC wants to be in partnership with the NMED.

Mr. Meeks gave a brief history of the RHMC, which was created in 1979 by then-Senator Joseph E. Gant, Jr., from Carlsbad, a retired mining engineer who advocated in the state and nationally for the viability of salt as a good repository for radioactive material.

WIPP Status Report and NMED Update

Secretary Flynn introduced his staff, thanked exiting legislators Representatives Bratton and Anderson for their service and advice and congratulated Representative Salazar on his primary victory. He then spoke of the hard work of his staff and the strong presence of the NMED in Carlsbad since the WIPP incident. He assured the RHMC that the NMED would provide the committee with as much information as it can handle, and he spoke of the ongoing nature of the investigation and the current lack of clear answers. He added that the precise cause of the WIPP release has not yet been identified, although various theories have been eliminated and information gathered. Until the breach in the drum can be identified, he said, the root cause of the event cannot be determined. Among the parties engaged in the investigation are teams at Los Alamos National Laboratory (LANL) and an internal investigation team consisting of experts looking at what caused the release, the regulatory process and operational procedures. Secretary Flynn said that the U.S. Department of Energy (DOE) formed a technical assessment team and an accident investigation board, which are also on the scene. The reports released thus far show findings from part of the WIPP investigation, with the first part focused on the underground fire and a second report that reviews the DOE's response to the release. The third report will focus on what actually caused the release, he mentioned, and information is being gathered on a daily, and even hourly, basis toward that end.

Trais Kliphuis, manager of the Hazardous Waste Bureau (HWB), NMED, and Thomas Skibitski, chief of the DOE Oversight Bureau, addressed the committee on the NMED's role at WIPP, recent incidents there and how the NMED has responded. Ms. Kliphuis clarified that the NMED has 20 bureaus, of which six play a role at WIPP, two of those crucial ones: the HWB and the DOE Oversight Bureau. She spoke about the HWB's regulation of the hazardous waste component of mixed waste stored at WIPP as well as the hazardous waste permit, which was originally issued in 1999 and renewed in 2010 and is up for another renewal in 2020. Mr. Skibitski then spoke of the DOE Oversight Bureau's responsibilities, which include oversight and monitoring of activities at WIPP, programs that evaluate impacts to the environment and public health and environmental sampling and analysis.

Ms. Kliphuis gave an overview of the current time line of NMED involvement related to the radioactive release at WIPP, which shows a lag of five days between the release and when the NMED was notified and includes dates for the four administrative orders to WIPP and LANL. The time line shows that the last underground entry was on May 30 to replace and maintain the filtration system to ensure that released radioactivity is contained.

The NMED does not have any regulatory authority over the maintenance of the salt truck that caught fire, Ms. Kliphuis said. Because WIPP is both a mine and a disposal facility, it has a complex regulatory structure, Secretary Flynn added. The radioactive release happened at night in a drum near Panel 7 in Room 7, he said, which is a panel that had just begun to be filled. Another notable fact is that the locations of the fire and the release were 2,300 feet apart, so the DOE does not believe that these events are related. In further explaining what occurred in Panel 7, Secretary Flynn said that the material holding the bags of magnesium oxide together that had been on top of the drums just disintegrated. By all indications, he added, the area got very hot very quickly, and because all of the material was still neatly stacked, they knew it could not have been an explosion. Before anyone entered the underground, he explained, the leading theory was that there was a structural issue that caused the container to breach, but later information eliminated a structural issue. Secretary Flynn said that investigators are still gathering information, but they have more and more evidence that rules out what did not happen. He added that the focus has now turned toward the chemical reaction inside the drum.

Secretary Flynn and Ms. Kliphuis then responded to a series of questions and concerns, as summarized below:

- the NMED does not fault the weight of the magnesium oxide sacks as the cause of the event (magnesium oxide is designed to absorb carbon dioxide, gases and pressure that comes from decomposition of the waste over time);
- based on all current information, which includes the distance apart and the time between events, the NMED believes is it highly unlikely that the fire in any way triggered a reaction in one of the drums;
- what occurred was not an explosion in the NMED's eyes, but a heat or energetic event, which is an important distinction;
- the "suspect drum" was midway back in the panel, and areas in front and behind the drum were undisturbed;
- the salt behaved well under the pressure, with no burn scarring and no issues of structural integrity of the mine;
- what actually dissolved is the polypropylene of the sacks, which only melted at the point of the heat release;
- the role of the NMED is to monitor and study impacts of the release on the environment, but it does not conduct the investigation itself. The DOE has teams of outstanding scientists looking into what could have triggered the release;
- until the root cause of the release is determined, the NMED cannot evaluate what changes will be needed to move forward;

- the belief is that a chemical reaction occurred, and the work being done now is to re-create that reaction, but to date this has not been achieved;
- using the organic kitty litter acted as a fuel to this event, but simply switching from inorganic to organic did not cause the release. Staff experts and a chemist are investigating;
- once the DOE completes its investigation, the NMED will require an internal investigation as well;
- the NMED is concerned over what isotopes have been released, and the DOE, NMED and Carlsbad Environmental Monitoring and Research Center (CEMRC) are conducting analytical suites to pinpoint exactly which radioactive isotopes were involved; and
- there were two components to the heat event: a radioactive release and the chemical reaction itself that caused the heat event.

Mr. Skibitski continued with the presentation by speaking about the sort of monitoring that the DOE Oversight Bureau accomplishes at WIPP. He spoke of Station A originally being the point of compliance for air emissions; Station B is located downstream from the filtration system and is currently the point of compliance. Since the release, he indicated that soils, sediments, vegetation and surface water have all been sampled. He added that monitoring along the WIPP transportation route has shown that no change has been observed related to this event.

Highlighting the sampling locations for both the region around the site of the release and around the WIPP facility itself, Mr. Skibitski gave details on the type of sampling done at each point on the map and also said that the "B1-1" location is the presumed point of origin for the release (see handout). He also stated that since the release on February 14, the frequency of filter changes increased to three times per day, and each group of filters is analyzed individually by different departments. Both the CEMRC and the NMED do samples and analysis and then compare notes, he added. Samples from January and February at Stations A and B and quality control samples are currently at the analytical lab, and data should be available by June 25, he stated.

Mr. Skibitski said that ambient air monitoring checks air in the general environment for radioactive particulate. In reviewing the monitoring that has been accomplished, he said that 32 air samples were submitted for isotopic analyses, that draft air monitoring reports for periods in February and March are under technical review, that data are in for dates in March and April and the NMED is analyzing them and for May samples, the data are expected before the end of June.

He then highlighted the soil and vegetation monitoring that has occurred after the release, with 18 of these in the plume area itself, and he gave statistics on the number of samples submitted for analysis and the funding received, mainly for additional costs associated with sampling and analysis related to the release. Mr. Skibitski said that the NMED is collaborating with the CEMRC, the DOE and the U.S. Environmental Protection Agency (EPA) on its environmental monitoring and that the data can be used to sort out the extent of contamination

and the impact of it on the environment and on humans. Mr. Skibitski then described the lengthy process by which data are collected and analyzed.

Ms. Kliphuis gave details on four administrative orders that the NMED has issued since February 5, which are all posted on the NMED's web site. She said that the primary use of the orders is to provide immediate direction to address noncompliance of the permit. She added that because the second order involves a storage plan for underground waste, and since the NMED cannot currently go underground, not much of this order can be addressed underground, but it is being accomplished above ground for now. The third and fourth orders address waste similar to the suspected drum waste and involve LANL developing a nitrate-bearing waste container isolation plan.

Secretary Flynn said that the NMED continues to evaluate and to narrow the scope of the orders to drums that are the highest risk. He said that the highly acidic drums are the highest risk and that these have been isolated and secured by being packed into metal standard waste boxes and stored at Area G. These drums are all nitrate salt waste-bearing drums and are stored where fire suppression, air filters and monitors are housed so that if a release occurs, the air would be filtered and LANL and the NMED would know immediately.

In addition, Secretary Flynn indicated that with the drums at WIPP, the highest risk is in transportation of these drums, when there is the least control over the most amount of variables. He said that it is not feasible to take the WIPP waste and remove it from the underground area because this would increase risk. The NMED has also identified drums of concern in Panel 6, and he said that the NMED wants an expedited plan to close these panels, which will have to happen before resuming operations at WIPP, and there is no reason for delaying this. Also, he made clear that the NMED does not approve DOE procedures as it is not the NMED's regulatory role to do so, but the procedures need to be clearly articulated and in place and areas of improvement need to be addressed. The NMED will be pushing the DOE to make the needed changes to procedures and to stay involved with the appropriate scientific personnel.

In response to questions about employee contamination, Secretary Flynn said that the primary concern is protecting the public and the workers and that the DOE also takes the safety of workers seriously. He stated that no one was working in the underground area at the time of the release, and the next morning, people at the site were vulnerable to contamination. He emphasized that once the monitor had alerted of the leak and the filtration system had kicked in, there should have been precautions taken. The response should have been for management to treat it as a radiation release and to limit any exposure because of the contamination. Secretary Flynn spoke of the active monitoring of workers for exposure levels that occurs at WIPP due to the limits in place on how much radiation a worker can be exposed to on an annual basis. In the case of this release, there were very sensitive tests given over time to monitor these levels in the workers, and 21 workers were found to be exposed, he added. A small percentage of air that did not go through the filtration system came through the exhaust system after the release, through dampers that do not fully close, and that is the pathway to exposure, the secretary explained.

In response to committee questions and concerns, the following points were made:

- the fourth order states that Panel 7 cannot be closed until the nature of this release has been identified and the chemical reaction named;
- it is in the long-term interest of the state, the local community and the nation first to know what happened at WIPP, then to make needed changes to get the facility running again;
- there are five other drums with a high acidity content similar to the drum that breached, all of which are located at the Waste Control Specialists site in Texas (this was reported differently at the meeting, but corrected later in the day by the DOE);
- the NMED is proceeding cautiously and being both conservative and aggressive with the DOE to ensure that the public will not be exposed to any further release;
- the air in the filtration system moves along a one-way path, and the leakage is suspected to have happened at the point where the system splits; when the switch to the filtration system happens, the exhaust system is shut down so the air can only travel through the filtration system; the problem was that there was a leak that allowed air to bypass the filtration system;
- funding for environmental cleanup at LANL comes from the Office of Environmental Management (EM), which is part of the DOE, although LANL is a National Nuclear Security Administration (NNSA) site and the money is directed to the NNSA and it is necessary for EM to play a more active role; and
- communication has improved between the DOE and the NMED, although initially the NMED was not notified in a timely manner of the release and had to make several demands to gain a constructive working relationship and to ensure that the public was being kept informed through town meetings.

2014 Interim Work Plan and Meeting Schedule

Senator Wirth requested the committee's input regarding topics on the work plan as well as meeting days and travel locations. After discussion, the RHMC approved the proposed work plan with additions and deletions as discussed, and the meeting schedule was approved as well.

Adjournment

There being no further business, the committee adjourned at 12:58 p.m.